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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/500,035 | 06/23/2004 | Takashi Aramaki | L8638.04103 | 2232 |
| 24257 7590 08/22/2007 STEVENS DAVIS MILLER & MOSHER, LLP 1615 L STREET, NW SUITE 850 WASHINGTON, DC 20036 | | | EXAMINER GOETZE, SIMON A | |
| | | | ART UNIT 2617 | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/500,035

Applicant(s)

ARAMAKI ET AL.

Examiner

Simon A. Goetze

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2004 and 21 May 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2617

DETAILED ACTION

Response to Amendment

This Action is in response to Applicant's amendment filed on May 21, 2007. Claims 1 and 5 have been amended. **Claims 1-6** are still pending. This Action is made **FINAL**.

Specification

The objection to the specification has been withdrawn, as the appropriate corrections have been made.

Additionally, the amendments to the specification have been noted.

Drawings

The amended drawing sheets have been noted.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Art Unit: 2617

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. **Claims 1 and 4-6** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Carlsson et al. (US Patent 5,970,408)** in view of **Bender et al. (US Patent 6,888,805)**.

Consider **claim 1**, Carlsson et al. discloses a subnet connection switching communication system made to switch connections of a plurality of terminals from one gate constituting a subnet to the other gate constituting a subnet different from said subnet for making communications, said plurality of terminals being grouped into a plurality of groups and the connections are switched said group by said group (*the mobile radio base station defines groups of users it's circuitry initiates switching of the connections for the entire group – Figures 1, 5, and 6 – Column 6, Lines 32-40; Column 7, Lines 9-20; Column 8, Lines 10-22; Column 12, Lines 16-24 and 31-36*).

However, Carlsson et al. fails to disclose that the times are staggered.

In related prior art, Bender et al. discloses a time division multiplexing scheme where the users in a particular group only transmit in their specified time slot. Figure 3 shows the staggering of this communication (*Figure 3 – Abstract; Column 2, Lines 40-53 and 65-67; Column 5, Lines 39-49; Column 11, Lines 52-67*).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate the teachings of Bender et al. with those of Carlsson et al. in order to provide a method for managing communications which reduces load on the network and communication interference.

Consider **claim 4**, as applied to claim 1 above, Carlsson et al. as modified by Bender et al. further discloses that said plurality of terminals are located in a mobile body to move with said mobile body (*train – Column 6, Lines 32-40*).

Consider **claim 5**, as applied to claim 4 above, Carlsson et al. as modified by Bender et al. discloses that said mobile body includes external communication means for making communication with the one gate or the other gate and internal communications means for making communications with said plurality of terminals (*Column 8, Lines 10-22; Column 12, Lines 16-24*),

said plurality of terminals making the connections through said external communication means and said internal communication means with the one gate or the other gate (*Column 11, Lines 46-67; Column 12, Lines 31-36*).

Consider **claim 6**, as applied to claim 4 above, Carlsson et al. as modified by Bender et al. discloses that said mobile body is a train including a plurality of cars, and a plurality of terminals located in at least one of said plurality of cars are set as one of said groups, and the

Art Unit: 2617

grouping is made with said each car (*Figures 1, 5, and 6 – Column 6, Lines 32-40; Column 7, Lines 9-20; Column 8, Lines 10-22*).

2. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Carlsson et al.** (US Patent 5,970,408) in view of **Bender et al.** (US Patent 6,888,805), further in view of **Meier** (US Patent Application Publication 2005/0180345).

Consider **claim 2**, as applied to claim 1 above, Carlsson et al. as modified by Bender et al. discloses the grouping of the mobile devices, but fails to disclose that the grouping is conducted by a VLAN, and an instruction for the connection switching is sent for said each group through the use of a function of said VLAN.

In related prior art, Meier discloses a mobile VLAN and that the grouping is conducted by a VLAN, and an instruction for the connection switching is sent for said each group through the use of a function of said VLAN (*Abstract; Page 1, Paragraphs 0005-0008; Page 4, Paragraph 0053; Page 8, Paragraphs 0122-0124*).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate the teachings of Meier with those of Carlsson as modified by Bender et al. in order to efficiently group and manage mobile devices.

3. **Claim 3** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Carlsson et al.** (US Patent 5,970,408) in view of **Bender et al.** (US Patent 6,888,805), further in view of **Gavrilovich** (US Patent 6,026,277).

Art Unit: 2617

Consider **claim 3**, as applied to claim 1 above, Carlsson et al. as modified by Bender et al. discloses that a handoff is made which does not interrupt the communication , but fails to specifically disclose that an overlap range is provided where a communicable range connectable to the one gate and a communicable range connectable to the other gate overlap with each other, and all the connections of said plurality of terminals are switched within a time period in which said plurality of terminals exist in said overlap range.

In related prior art, Gavrilovich discloses moving base station which effectuates handoffs and that an overlap range is provided where a communicable range connectable to the one gate and a communicable range connectable to the other gate overlap with each other, and all the connections of said plurality of terminals are switched within a time period in which said plurality of terminals exist in said overlap range (*Column 3, Lines 37-40; column 9, Lines 10-24; Column 11, Lines 12-26*).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate the teachings of Gavrilovich with those of Carlsson et al. as modified by Bender et al. in order to provide uninterrupted service to a group of users.

Response to Arguments

Applicant's arguments filed May 21, 2007 have been fully considered but they are not persuasive.

The argued features (of independent claim 1) i.e., a communication system which groups communications devices and switches the communication devices of a group at the same time using a time-staggering scheme reads upon Carlsson et al. in view of Bender et al. as follows.

Carlsson et al. is discussing a system for switching entire groups of communication devices. They discuss defining the groups, and when appropriate, switching the entire group of communication devices, rather than having them all effectuate their own handoff. Therefore disclosing the limitation of “a plurality of terminals switching connections are grouped into a plurality of groups.” As well as disclosing “terminals in a particular groups are switched at the same time.” However, Carlsson et al. is silent on specifying time slots for a particular group. Bender et al. discusses grouping communication devices and specifying a time slot for each group to communicate. Therefore disclosing the limitation of “the same time slot.” By each group transmitting only in it's specified time slot, the process is staggered.

Additionally, Carlsson et al. and Bender et al. are from related art, and therefore they are combinable. They can be combined and used to teach the claimed invention of the Applicant.

As a result, the argued features are written in such a way that they read upon the cited references.

Conclusion

Art Unit: 2617

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

2. Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

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Randolph Building
401 Dulany Street
Alexandria, VA 22314

3. Any inquiry concerning this communication or earlier communications from the

Art Unit: 2617

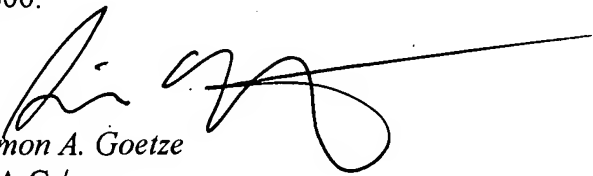
Examiner should be directed to Simon A. Goetze whose telephone number is (571) 270-1113.

The Examiner can normally be reached on Monday-Thursday from 7:30am to 5:00pm and Friday from 7:30am to 4:00pm.

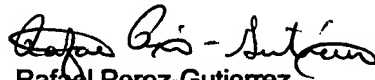
If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Nick Corsaro can be reached on (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.


Simon A. Goetze
S.A.G./sag

August 20, 2007


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8/20/07